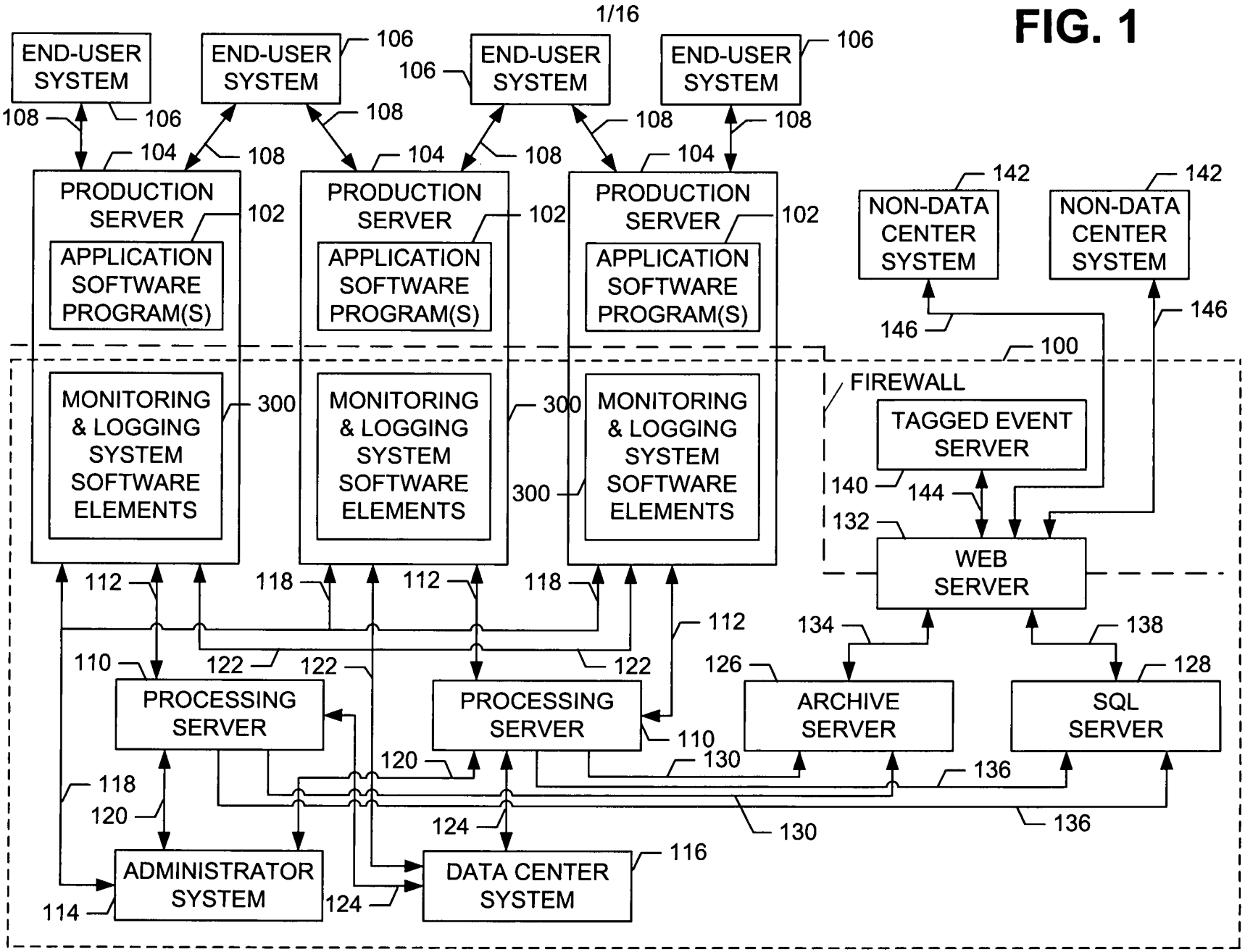
FIG. 1


END-USER SYSTEM
106
108
104
PRODUCTION SERVER
102
APPLICATION SOFTWARE PROGRAM(S)
MONITORING & LOGGING SYSTEM SOFTWARE ELEMENTS
300
NON-DATA CENTER SYSTEM
142
146
100
FIREWALL
TAGGED EVENT SERVER
140
144
132
WEB SERVER
134
138
126
128
ARCHIVE SERVER
SQL SERVER
112
118
122
110
PROCESSING SERVER
120
130
136
124
ADMINISTRATOR SYSTEM
114
DATA CENTER SYSTEM
116

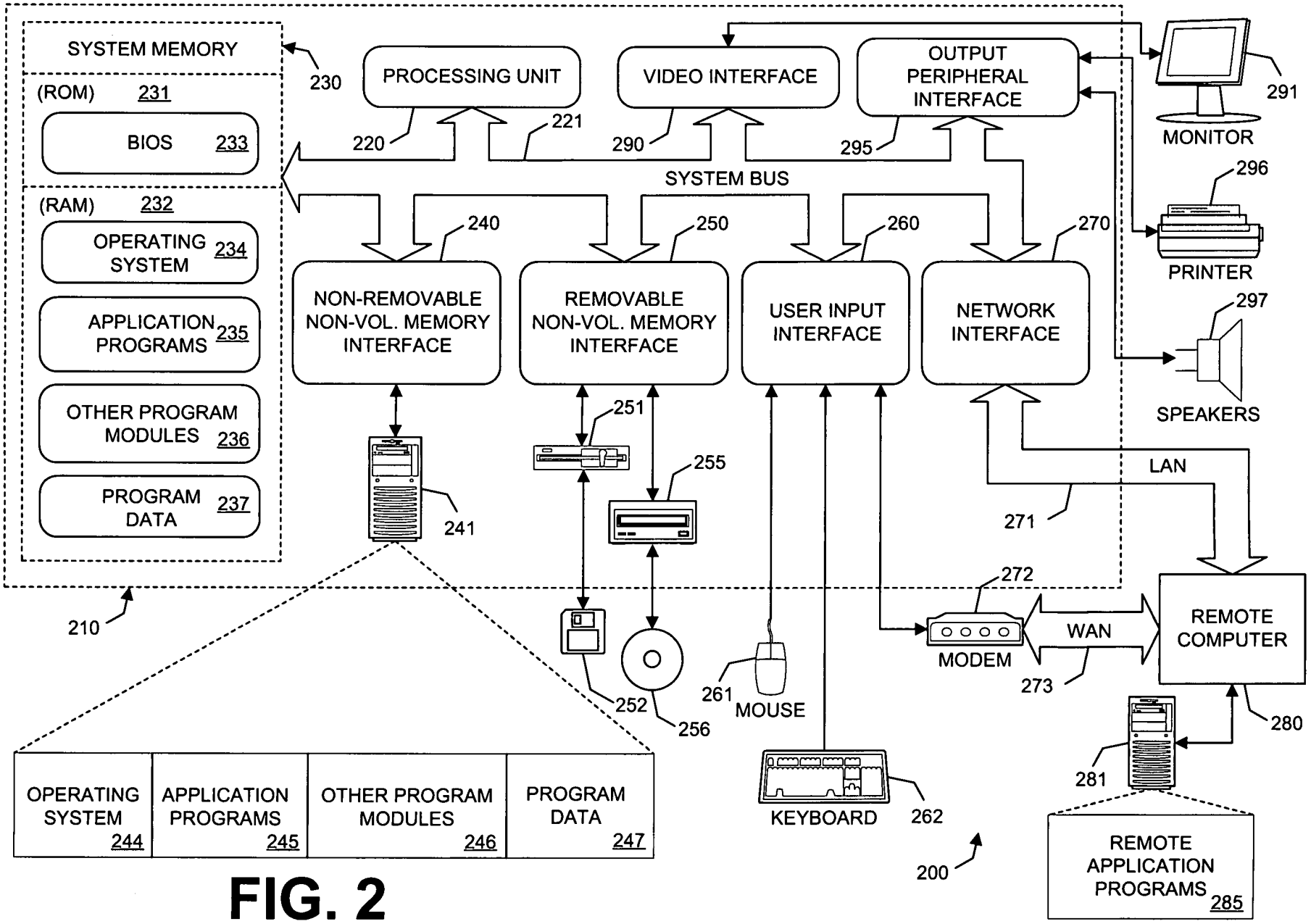

SYSTEM MEMORY
230
(ROM) 231
BIOS 233
(RAM) 232
OPERATING SYSTEM 234
APPLICATION PROGRAMS 235
OTHER PROGRAM MODULES 236
PROGRAM DATA 237
PROCESSING UNIT
220
221
VIDEO INTERFACE
290
OUTPUT PERIPHERAL INTERFACE
295
SYSTEM BUS
NON-REMOVABLE NON-VOL. MEMORY INTERFACE
240
REMOVABLE NON-VOL. MEMORY INTERFACE
250
USER INPUT INTERFACE
260
NETWORK INTERFACE
270
241
251
255
252
256
261
MOUSE
KEYBOARD
262
MONITOR
291
PRINTER
296
SPEAKERS
297
LAN
271
MODEM
272
WAN
273
REMOTE COMPUTER
280
281
REMOTE APPLICATION PROGRAMS 285
210
200
OPERATING SYSTEM 244
APPLICATION PROGRAMS 245
OTHER PROGRAM MODULES 246
PROGRAM DATA 247

FIG. 2

FIG. 3

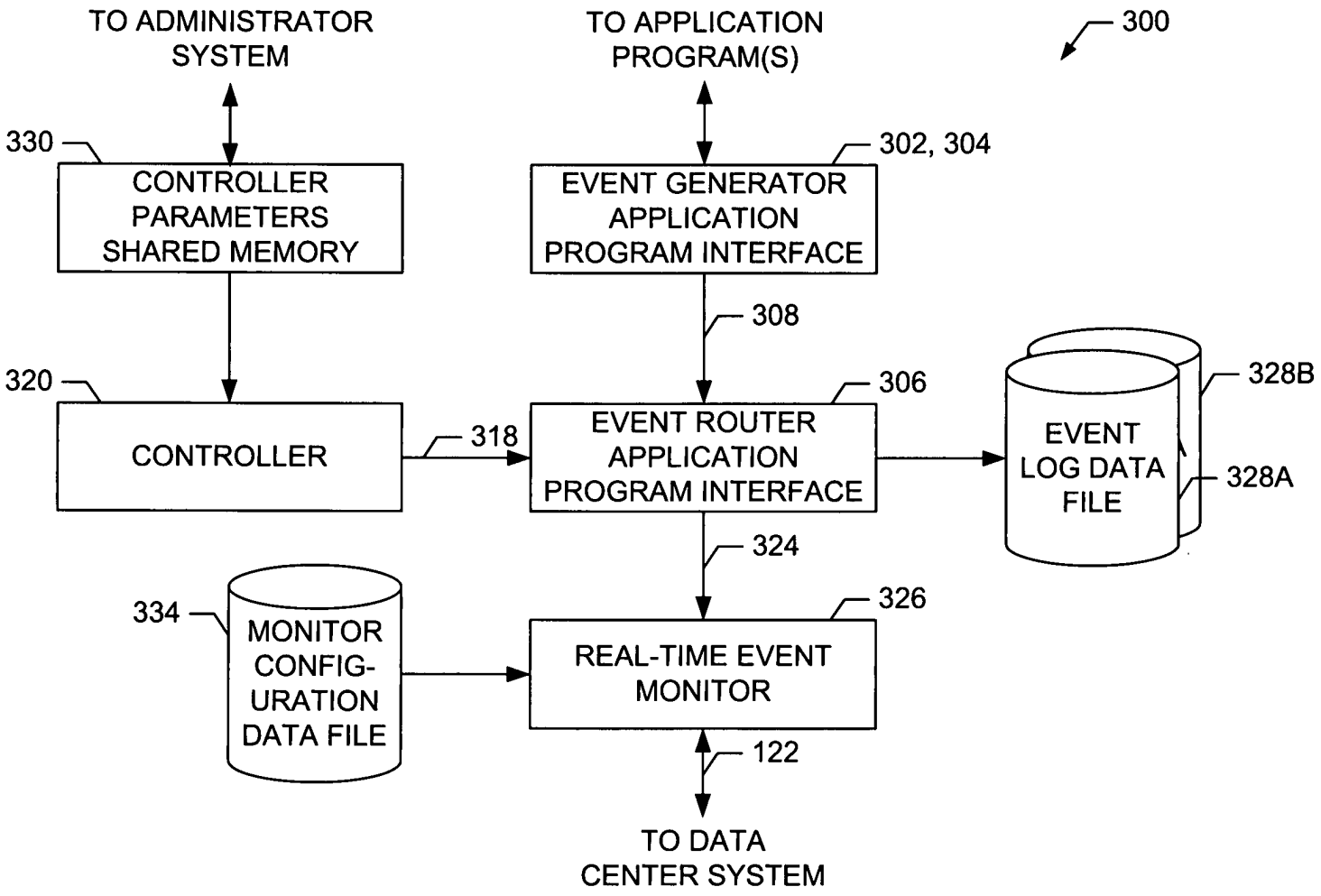

TO ADMINISTRATOR SYSTEM
TO APPLICATION PROGRAM(S)
300
330
CONTROLLER PARAMETERS SHARED MEMORY
302, 304
EVENT GENERATOR APPLICATION PROGRAM INTERFACE
308
320
CONTROLLER
318
306
EVENT ROUTER APPLICATION PROGRAM INTERFACE
328B
EVENT LOG DATA FILE
328A
324
334
MONITOR CONFIG-URATION DATA FILE
326
REAL-TIME EVENT MONITOR
122
TO DATA CENTER SYSTEM

FIG. 4

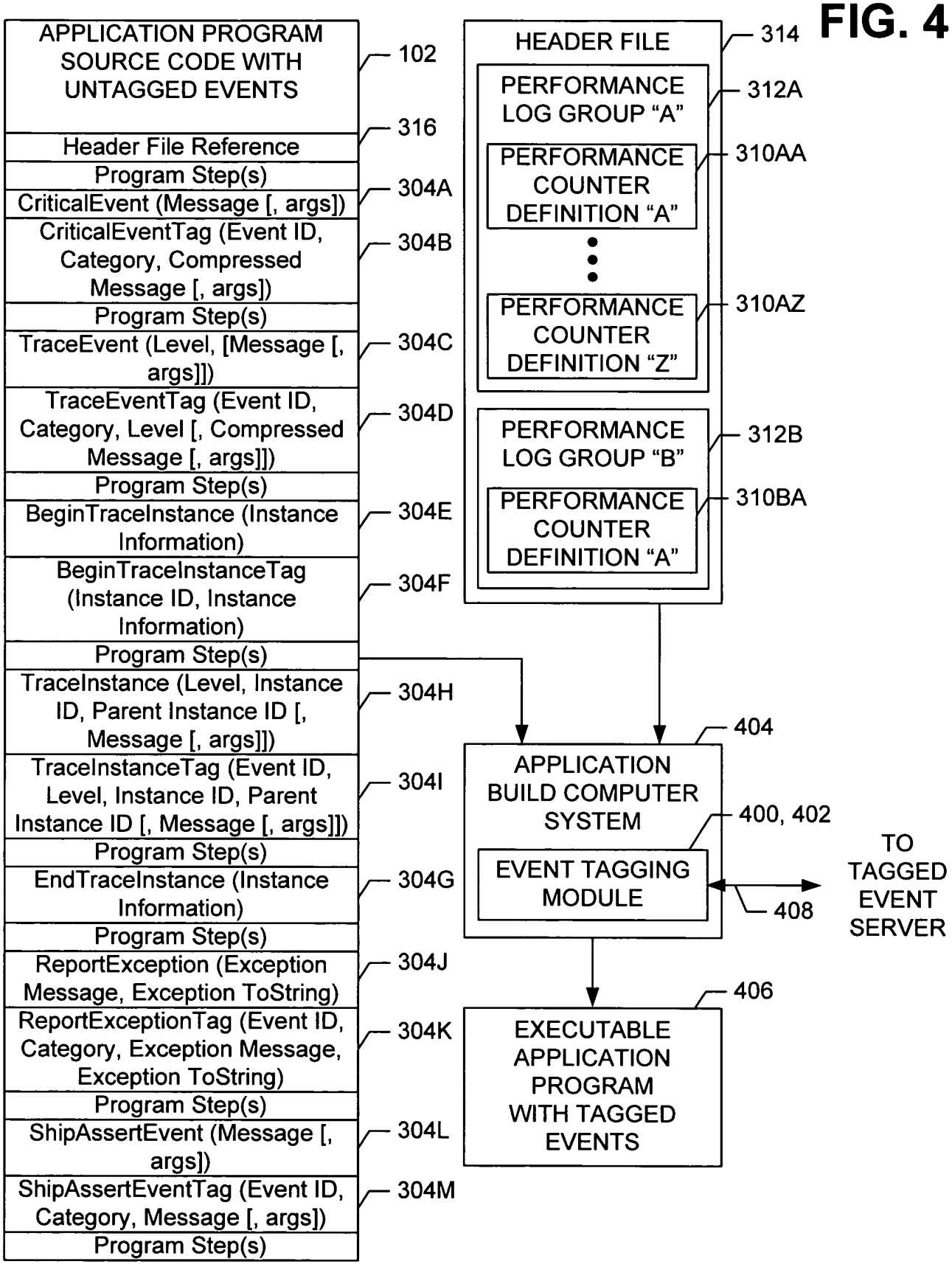

APPLICATION PROGRAM SOURCE CODE WITH UNTAGGED EVENTS
102
316
Header File Reference
Program Step(s)
304A
CriticalEvent (Message [, args])
304B
CriticalEventTag (Event ID, Category, Compressed Message [, args])
Program Step(s)
304C
TraceEvent (Level, [Message [, args]])
304D
TraceEventTag (Event ID, Category, Level [, Compressed Message [, args]])
Program Step(s)
304E
BeginTraceInstance (Instance Information)
304F
BeginTraceInstanceTag (Instance ID, Instance Information)
Program Step(s)
304H
TraceInstance (Level, Instance ID, Parent Instance ID [, Message [, args]])
304I
TraceInstanceTag (Event ID, Level, Instance ID, Parent Instance ID [, Message [, args]])
Program Step(s)
304G
EndTraceInstance (Instance Information)
Program Step(s)
304J
ReportException (Exception Message, Exception ToString)
304K
ReportExceptionTag (Event ID, Category, Exception Message, Exception ToString)
Program Step(s)
304L
ShipAssertEvent (Message [, args])
304M
ShipAssertEventTag (Event ID, Category, Message [, args])
Program Step(s)
HEADER FILE
314
PERFORMANCE LOG GROUP "A"
312A
PERFORMANCE COUNTER DEFINITION "A"
310AA
PERFORMANCE COUNTER DEFINITION "Z"
310AZ
PERFORMANCE LOG GROUP "B"
312B
PERFORMANCE COUNTER DEFINITION "A"
310BA
404
APPLICATION BUILD COMPUTER SYSTEM
400, 402
EVENT TAGGING MODULE
408
TO TAGGED EVENT SERVER
406
EXECUTABLE APPLICATION PROGRAM WITH TAGGED EVENTS

FIG. 5

500

```
- <Courier>
 - <Group>
  - <Genre Name="MonitorConfig">
   - <Record Type="string">
     - <![CDATA[

        <?xml version="1.0" ?>
        <config>
            <monitorconfig>
                <generalconfig>
                    <maxmeasurementspan>1800</maxmeasurementspan>
                    <thresholdcheckinterval>5</thresholdcheckinterval>
                    <nteventwriteinterval>10</nteventwriteinterval>
                    <droppedeventsthreshold>1</droppedeventsthreshold>
                </generalconfig>
                <countingrules>
                    <rule id="345" eventid="1903718264" offset="8" value="1234" timespan="5" comparison="3" />
                    <rule id="346" eventid="1969777002" timespan="30" comparison="3" />
                    <rule id="347" eventid="1969776999" timespan="30" comparison="3" />
                    <rule id="348" eventid="1953589113" timespan="30" comparison="3" />
                    <rule id="349" eventid="1969846391" timespan="30" comparison="3" />
                    <rule id="350" eventid="1969846392" timespan="30" comparison="3" />
                </countingrules>

                <thresholds>
                    <threshold id="445" ruleid="350" value="0" comparison="2" />
                    <threshold id="446" ruleid="351" value="0" comparison="2" />
                    <threshold id="447" ruleid="352" value="0" comparison="2" />
                    <threshold id="448" ruleid="353" value="5" comparison="2" />
                    <threshold id="449" ruleid="354" value="0" comparison="2" />
                    <threshold id="450" ruleid="355" value="5" comparison="2" />
                </thresholds>
            </monitorconfig>
        </config>
     ]]>
    </Record>
   </Genre>
  </Group>
</Courier>
```

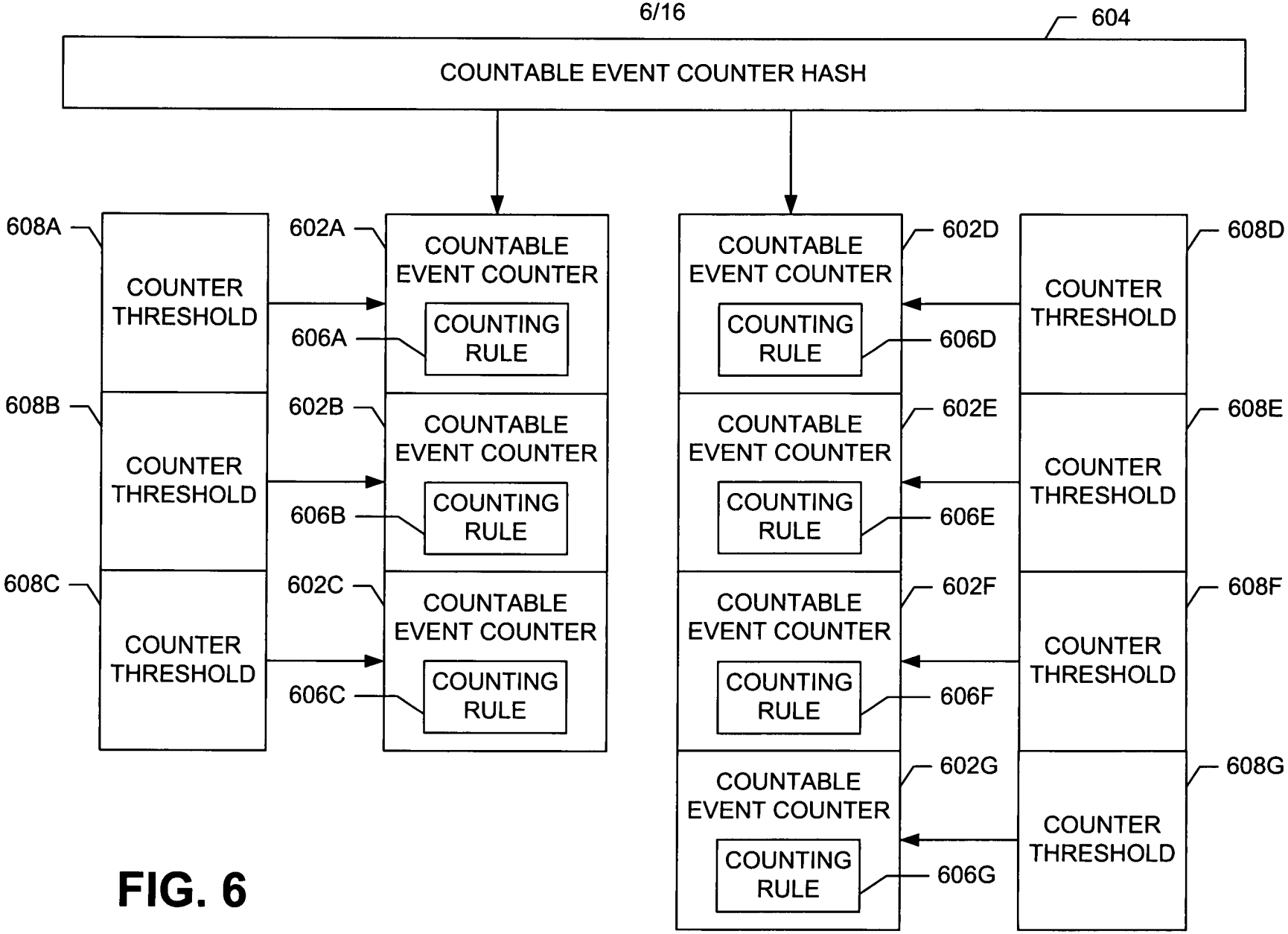

604
COUNTABLE EVENT COUNTER HASH
608A
COUNTER THRESHOLD
602A
COUNTABLE EVENT COUNTER
COUNTING RULE
606A
608B
COUNTER THRESHOLD
602B
COUNTABLE EVENT COUNTER
COUNTING RULE
606B
608C
COUNTER THRESHOLD
602C
COUNTABLE EVENT COUNTER
COUNTING RULE
606C
602D
COUNTABLE EVENT COUNTER
COUNTING RULE
606D
608D
COUNTER THRESHOLD
602E
COUNTABLE EVENT COUNTER
COUNTING RULE
606E
608E
COUNTER THRESHOLD
602F
COUNTABLE EVENT COUNTER
COUNTING RULE
606F
608F
COUNTER THRESHOLD
602G
COUNTABLE EVENT COUNTER
COUNTING RULE
606G
608G
COUNTER THRESHOLD

FIG. 6

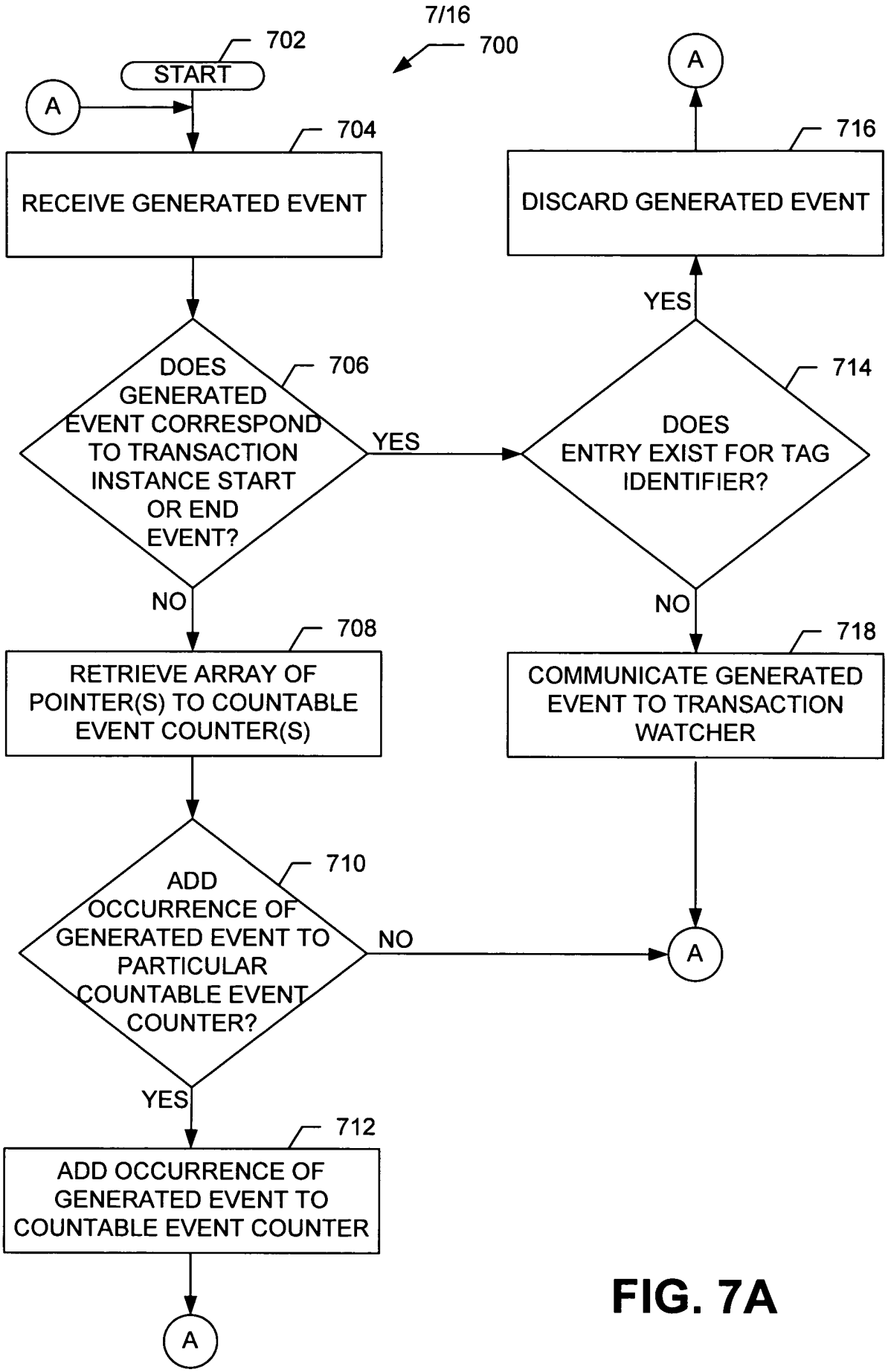

700
702
START
A
704
RECEIVE GENERATED EVENT
706
DOES GENERATED EVENT CORRESPOND TO TRANSACTION INSTANCE START OR END EVENT?
YES
NO
708
RETRIEVE ARRAY OF POINTER(S) TO COUNTABLE EVENT COUNTER(S)
710
ADD OCCURRENCE OF GENERATED EVENT TO PARTICULAR COUNTABLE EVENT COUNTER?
NO
YES
712
ADD OCCURRENCE OF GENERATED EVENT TO COUNTABLE EVENT COUNTER
A
714
DOES ENTRY EXIST FOR TAG IDENTIFIER?
YES
NO
716
DISCARD GENERATED EVENT
A
718
COMMUNICATE GENERATED EVENT TO TRANSACTION WATCHER
A

FIG. 7A

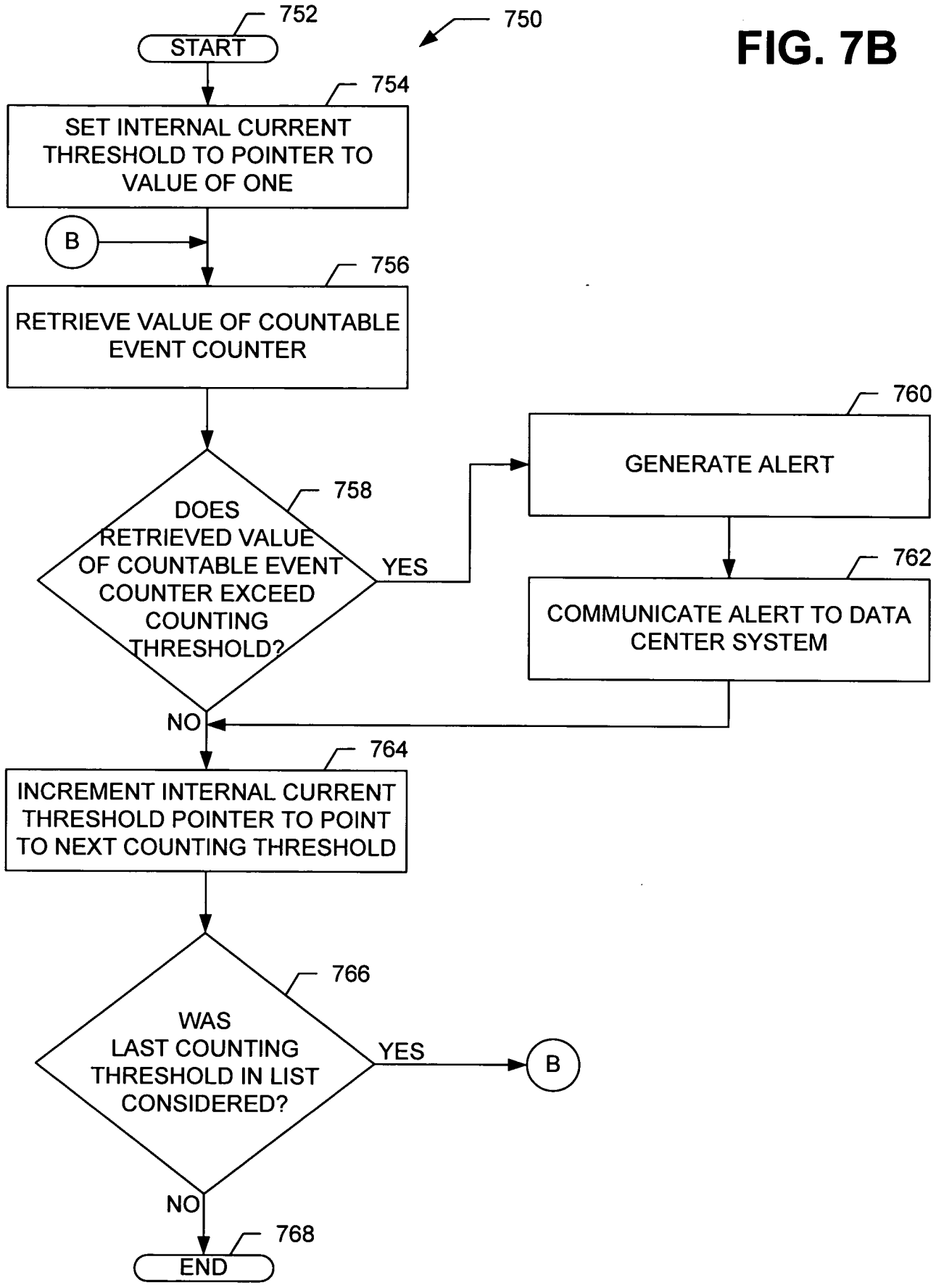

750
752
START
754
SET INTERNAL CURRENT THRESHOLD TO POINTER TO VALUE OF ONE
B
756
RETRIEVE VALUE OF COUNTABLE EVENT COUNTER
758
DOES RETRIEVED VALUE OF COUNTABLE EVENT COUNTER EXCEED COUNTING THRESHOLD?
YES
760
GENERATE ALERT
762
COMMUNICATE ALERT TO DATA CENTER SYSTEM
NO
764
INCREMENT INTERNAL CURRENT THRESHOLD POINTER TO POINT TO NEXT COUNTING THRESHOLD
766
WAS LAST COUNTING THRESHOLD IN LIST CONSIDERED?
YES
B
NO
768
END

FIG. 7B

FIG. 8

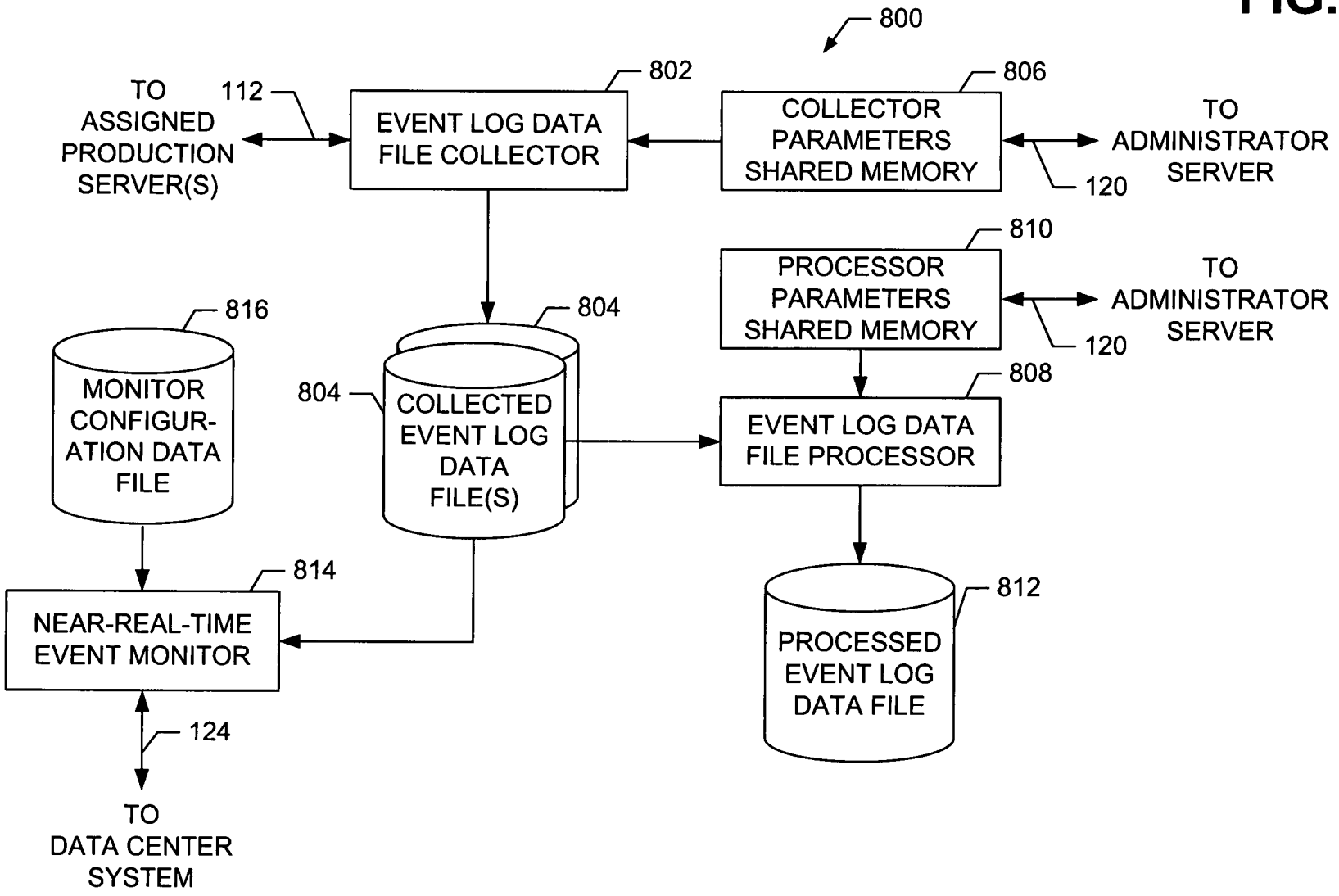

800
802
806
TO ASSIGNED PRODUCTION SERVER(S)
112
EVENT LOG DATA FILE COLLECTOR
COLLECTOR PARAMETERS SHARED MEMORY
TO ADMINISTRATOR SERVER
120
810
PROCESSOR PARAMETERS SHARED MEMORY
TO ADMINISTRATOR SERVER
120
816
804
804
MONITOR CONFIGUR-ATION DATA FILE
COLLECTED EVENT LOG DATA FILE(S)
808
EVENT LOG DATA FILE PROCESSOR
814
812
NEAR-REAL-TIME EVENT MONITOR
PROCESSED EVENT LOG DATA FILE
124
TO DATA CENTER SYSTEM

FIG. 9

900

The total ULS events tagged are 1243 as of Dec 3rd. Export To Excel.

Tagged ULS event Summary

		Total file #	PerfMon	Critical	Exception	Assert	Unexpected	Monitorable	High	Medium	Verbose
	Total	234	329	123	138	232	329	432	434	424	356
Authoring	123	23	45	23	21	5	45	56	78	34	32
collaboration	23	5	6	4	2	1	7	3	2	2	1
Research	34	5	6	4	2	1	7	3	2	2	1
Reference	15	5	6	4	2	1	7	3	2	2	1
Translation	16	5	6	4	2	1	7	3	2	2	1
Fax	21	5	6	4	2	1	7	3	2	2	1
AWS	343	23	45	23	21	5	45	56	78	34	23
CTMS	23	23	45	23	21	5	45	56	78	34	13
DDS	343	23	45	23	21	5	45	56	78	34	23
BI	46	23	45	23	21	5	45	56	78	34	32
DnR	334	23	45	23	21	5	45	56	78	34	23
DSS	343	23	45	23	21	5	45	56	78	34	13
IM/N	46	23	45	23	21	5	45	56	78	34	23
MPD	56	23	45	23	21	5	45	56	78	34	32
MPS	78	23	45	23	21	5	45	56	78	34	23
Foundation	90	23	45	23	21	5	45	56	78	34	13
QnS	46	23	45	23	21	5	45	56	78	34	23
STS	79	23	45	23	21	5	45	56	78	34	32
UIS	90	23	45	23	21	5	45	56	78	34	23
IPD	78	23	45	23	21	5	45	56	78	34	13
XDocs	34	23	45	23	21	5	45	56	78	34	23
RTC	23	23	45	23	21	5	45	56	78	34	23
Frontpage	56	23	45	23	21	5	45	56	78	34	12
Publisher	232	23	45	23	21	5	45	56	78	34	11

FIG. 10

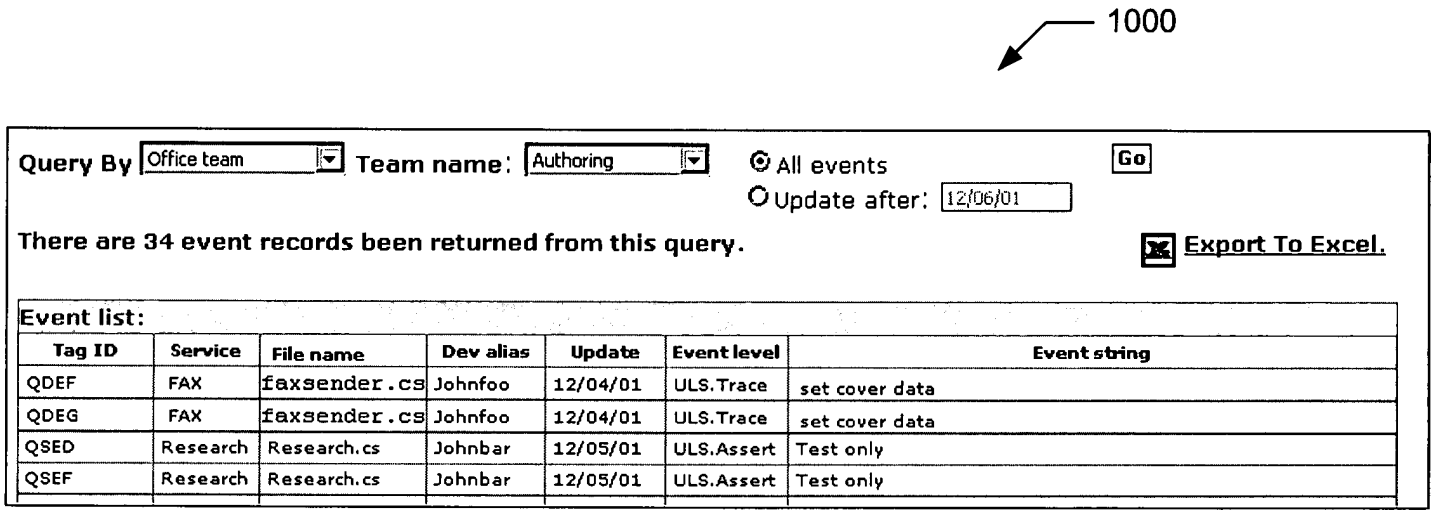
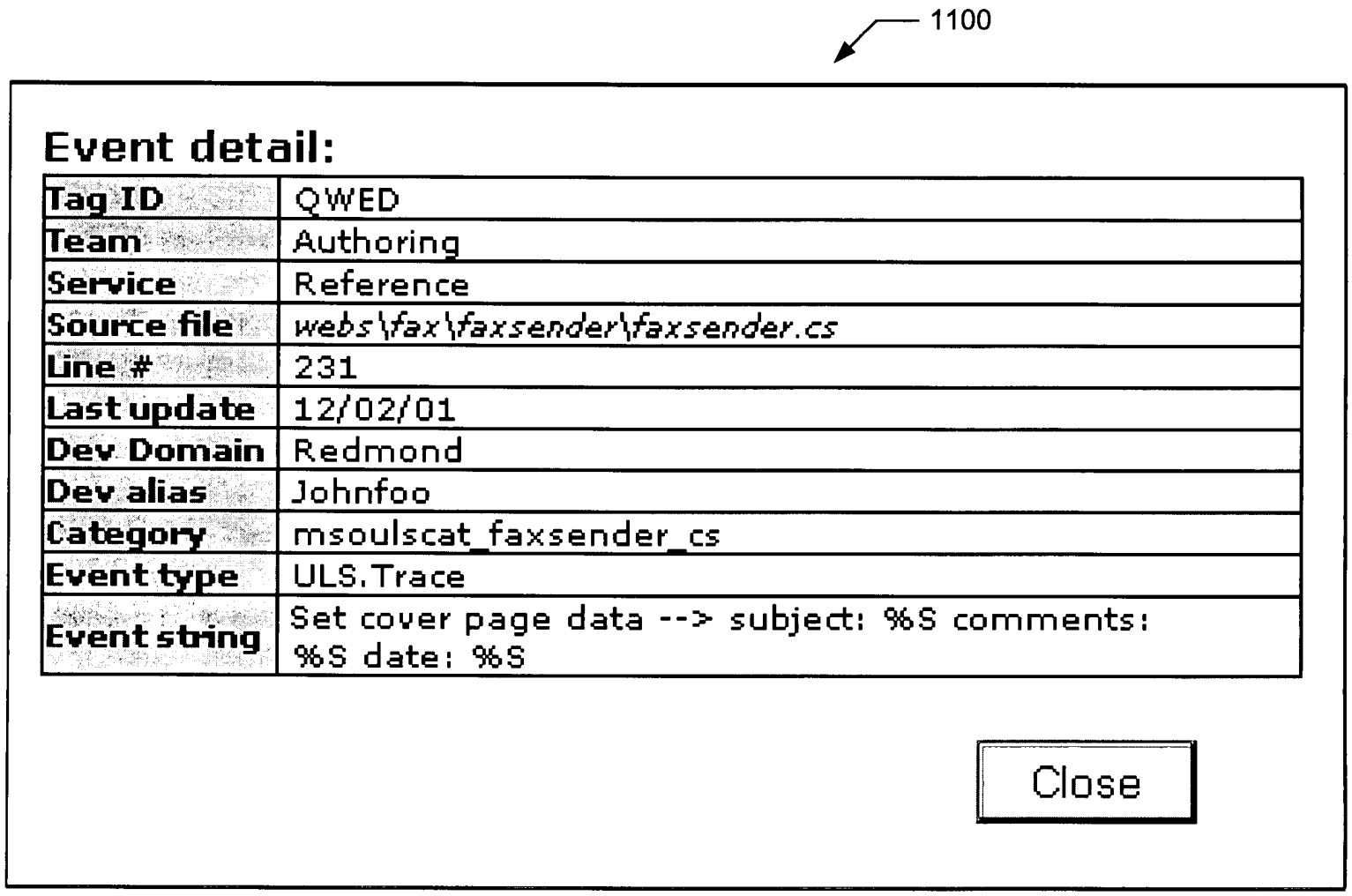

1000
Query By Office team
Team name: Authoring
All events
Update after: 12/06/01
Go
There are 34 event records been returned from this query.
Export To Excel.
Event list:
Tag ID | Service | File name | Dev alias | Update | Event level | Event string
QDEF | FAX | faxsender.cs | Johnfoo | 12/04/01 | ULS.Trace | set cover data
QDEG | FAX | faxsender.cs | Johnfoo | 12/04/01 | ULS.Trace | set cover data
QSED | Research | Research.cs | Johnbar | 12/05/01 | ULS.Assert | Test only
QSEF | Research | Research.cs | Johnbar | 12/05/01 | ULS.Assert | Test only

FIG. 11


1100
Event detail:
Tag ID
QWED
Team
Authoring
Service
Reference
Source file
webs\fax\faxsender\faxsender.cs
Line #
231
Last update
12/02/01
Dev Domain
Redmond
Dev alias
Johnfoo
Category
msoulscat_faxsender_cs
Event type
ULS.Trace
Event string
Set cover page data --> subject: %S comments: %S date: %S
Close

1200

FIG. 12

Date: Day: 08 Dec 2001 Go

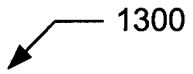
Export To Excel.

The total occurrences of ULS event is 23456.

Tagg d ULS event Summary

		Critical	Exception	Assert	Unexpected	Monitorable	High	% of
	Total	123	138	232	329	432	434	
Authoring	123	23	21	5	45	56	78	11.2
c llaboration	23	4	2	1	7	3	2	3.21
Research	34	4	2	1	7	3	2	2.12
Reference	15	4	2	1	7	3	2	3.01
Translation	16	4	2	1	7	3	2	2.76
Fax	21	4	2	1	7	3	2	1.10
AWS	343	23	21	5	45	56	78	5.23
CTMS	23	23	21	5	45	56	78	6.78
DDS	343	23	21	5	45	56	78	8.03
BI	45	23	21	5	45	56	78	2.34
DnR	334	23	21	5	45	56	78	4.56
DSS	343	23	21	5	45	56	78	1.89
IM/N	45	23	21	5	45	56	78	3.11
MPD	56	23	21	5	45	56	78	2.12
MPS	78	23	21	5	45	56	78	1.34
Foundation	90	23	21	5	45	56	78	3.34
QnS	46	23	21	5	45	56	78	4.56
STS	79	23	21	5	45	56	78	1.89
UIS	90	23	21	5	45	56	78	3.11
IPO	78	23	21	5	45	56	78	2.12
XDocs	34	23	21	5	45	56	78	1.34
RTC	23	23	21	5	45	56	78	3.34
Frontpage	56	23	21	5	45	56	78	2.34

FIG. 13



Date: Day: 08 Dec 2001 Query By All Office.NET Go Export To Excel.

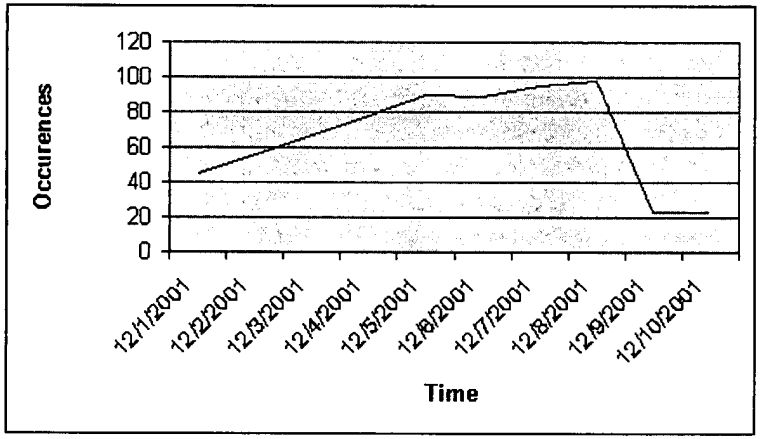
Top Events list:

Tag ID	Occurrences	% of All	Service	Dev alias	Event level	Event string
QDEF	1278	3.41%	Free/Busy	Johnfoo1	ULS.Trace	I'm the top 1 ULS event!!!
Tk2OFFWB01	345	1.01%				
Tk2OFFWB02	435	1.20%				
Tk2OFFWB03	345	1.01%				
QDEG	1121	2.98%	Dad Watson	Johnfoo2	ULS.Trace	I'm the top 2 ULS event!!!
QSED	983	2.74%	Research	Johnbar1	ULS.Assert	I'm the top 3 ULS event!!!
QSEF	873	2.67%	Fax	Johnbar2	ULS.Assert	I'm the top 4 ULS event!!!
Research			34	*5*	*4*	*2*
Reference			15	*5*	*4*	*2*
Translation			16	*5*	*4*	*2*

FIG. 14

1400

Tag ID: QDSW Start Date: 12/01/01 End data: 12/10/01 Go

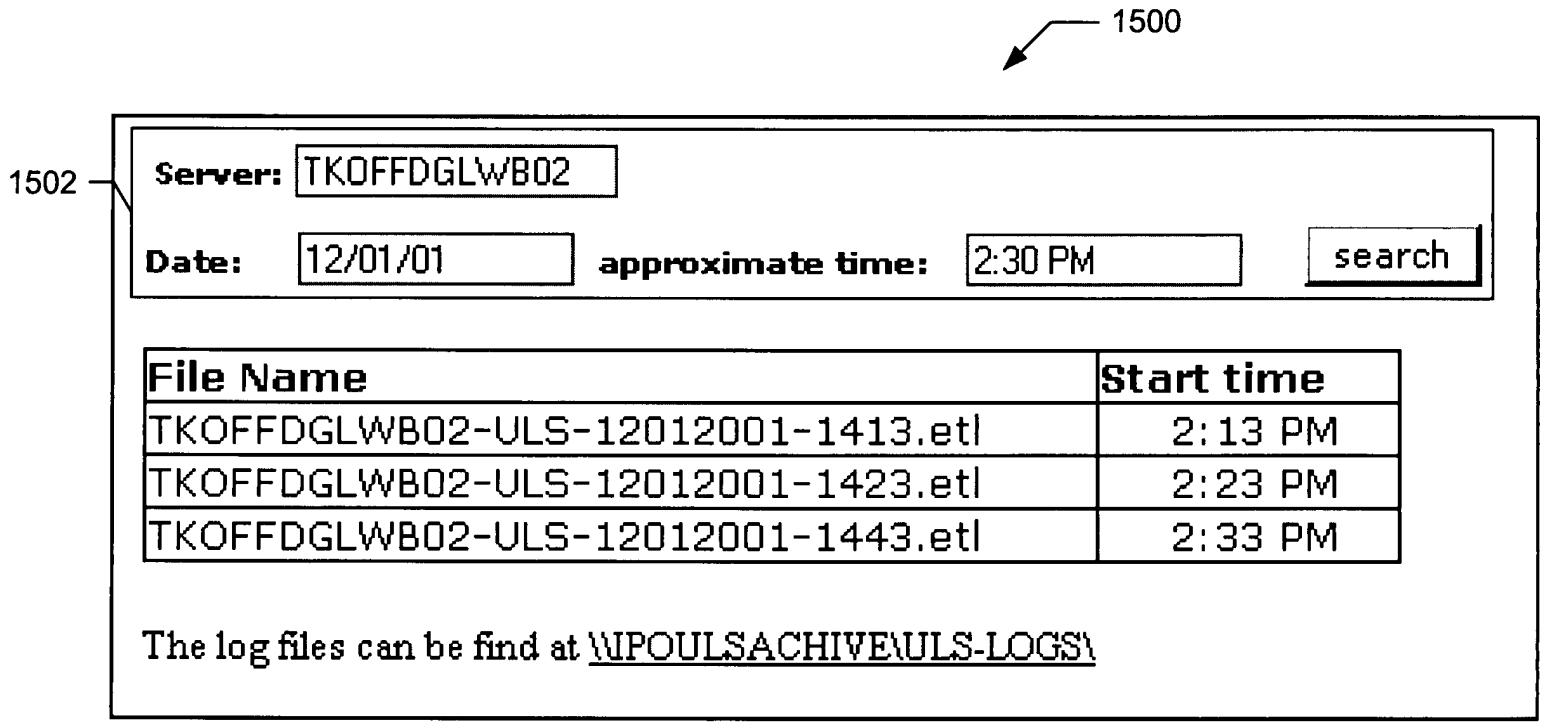


Event detail:

Tag ID	QDSW
Team	Authoring
Service	Reference
Source file	*webs\fax\faxsender\faxsender.cs*
Line #	231
Last update	12/02/01
Dev Domain	Redmond
Dev alias	Johnfoo
Category	msoulscat_faxsender_cs
Event type	ULS.Trace
Event string	Set cover page data --> subject: %S comments: %S date: %S

Time	Occurrences
12/01/01 0:00 AM	12
12/01/01 1:00 AM	13
12/01/01 2:00 AM	23
12/01/01 3:00 AM	11
12/01/01 4:00 AM	12
12/01/01 5:00 AM	23
12/01/01 6:00 AM	15
12/01/01 7:00 AM	16
12/01/01 8:00 AM	17
12/01/01 9:00 AM	23
12/01/01 10:00 AM	18
12/01/01 11:00 AM	18
12/01/01 12:00 AM	18

FIG. 15


1500
1502
Server: TKOFFDGLWB02
Date: 12/01/01
approximate time: 2:30 PM
search
File Name
Start time
TKOFFDGLWB02-ULS-12012001-1413.etl
2:13 PM
TKOFFDGLWB02-ULS-12012001-1423.etl
2:23 PM
TKOFFDGLWB02-ULS-12012001-1443.etl
2:33 PM
The log files can be find at \\POULSACHIVE\ULS-LOGS\